



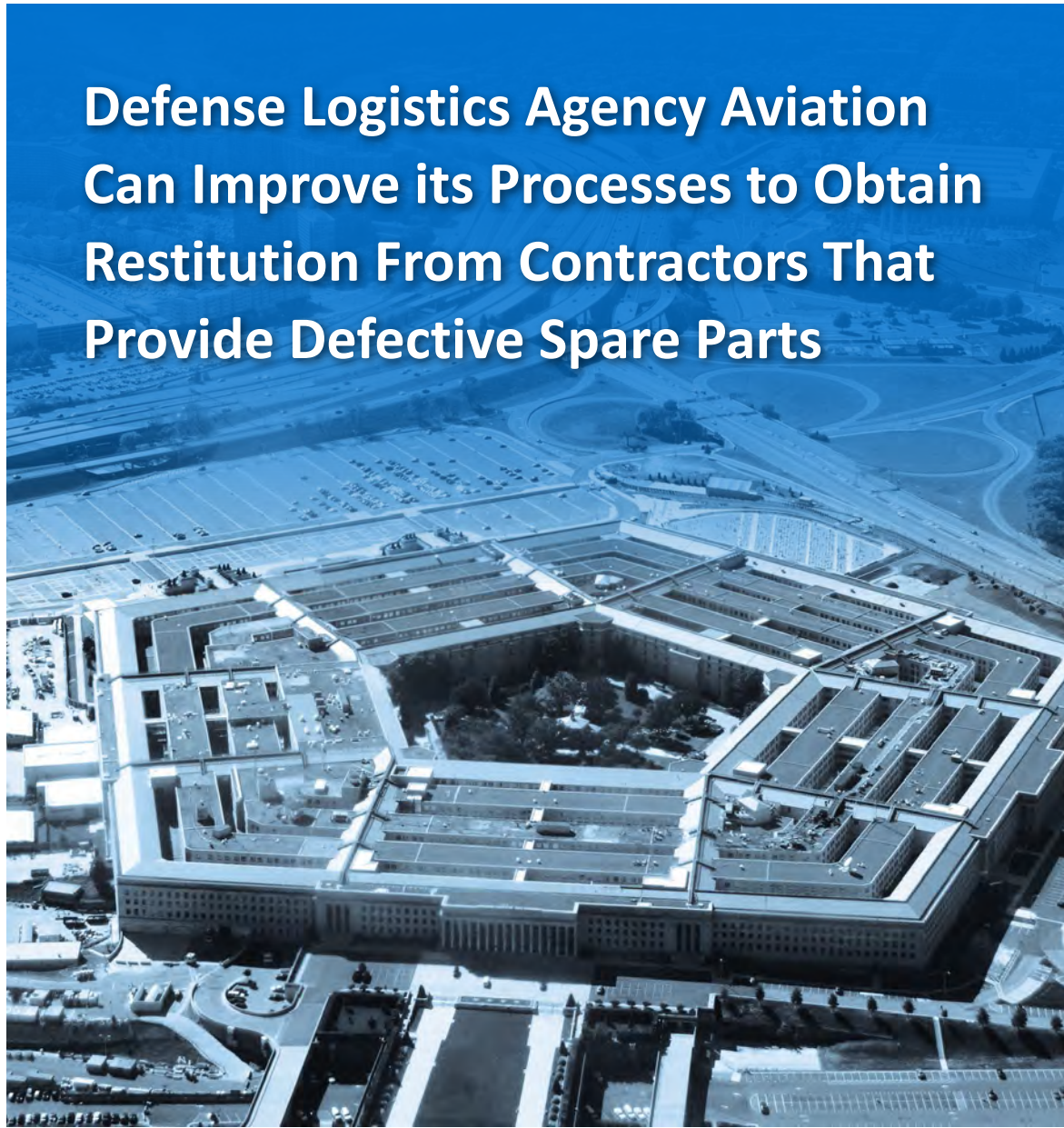
# INSPECTOR GENERAL

*U.S. Department of Defense*

FEBRUARY 23, 2016



## Defense Logistics Agency Aviation Can Improve its Processes to Obtain Restitution From Contractors That Provide Defective Spare Parts



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# Results in Brief

## *Defense Logistics Agency Aviation Can Improve its Processes to Obtain Restitution From Contractors That Provide Defective Spare Parts*

February 23, 2016

### Objective

We determined whether Defense Logistics Agency (DLA) personnel were obtaining appropriate restitution (reimbursement) from contractors that provided defective spare parts. This is the second in a series of audits on product quality deficiency reports processed by DLA.

### Finding

DLA Aviation did not pursue and obtain appropriate restitution for a projected 269 stock numbers for which contractors supplied defective parts. This occurred because DLA Aviation lacked controls and oversight to ensure that its logistics operations and acquisition personnel:

- coordinated and pursued restitution from responsible contractors;
- adequately searched DoD's inventory to identify and remove defective parts;
- returned defective parts to the responsible contractors for replacement; and
- tracked the status of parts returned to the responsible contractors for replacement.

As a result, we project that DLA Aviation did not recover at least \$12.3 million in restitution. In addition, defective parts were left unaccounted for in the DoD supply system, which negatively impacts warfighter readiness and safety.

### Recommendations

We recommend that the Director, DLA, develop a plan of action with milestones to improve the agency's processes to identify defective spare parts and pursue and obtain restitution from contractors that provide defective spare parts. The plan should address the findings in this report and establish controls and oversight to ensure DLA Aviation logistics operations and acquisition personnel:

- coordinate and pursue restitution from contractors that provide defective parts;
- adequately search DoD's inventory to identify and remove defective parts;
- return defective parts to responsible contractors for replacement;
- track the status of defective parts shipped back to contractors and ensure that appropriate restitution is provided in the form of replacement parts; and
- review all stock numbers with associated product quality deficiency reports closed from January 2014 through November 2015 where DLA's investigation concluded that the contractor provided defective parts, take prompt action to pursue and obtain appropriate restitution, and remove all defective parts from the DoD supply system.

### Management Comments and Our Response

Comments from the Director, DLA Logistics Operations, responding for the Director, DLA, addressed all specifics of the recommendations, and no additional comments are required. Please see the Recommendations Table on the back of this page.

## ***Recommendations Table***

Management	Recommendations Requiring Comment	No Additional Comments Required
Director, Defense Logistics Agency	None	1.a, 1.b, 1.c, 1.d, 2



**INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
4800 MARK CENTER DRIVE  
ALEXANDRIA, VIRGINIA 22350-1500**

February 23, 2016

**MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,  
TECHNOLOGY, AND LOGISTICS  
DIRECTOR, DEFENSE LOGISTICS AGENCY**

**SUBJECT: Defense Logistics Agency Aviation Can Improve its Processes to Obtain  
Restitution From Contractors That Provide Defective Spare Parts  
(Report No. DODIG-2016-052)**

We are providing this report for your information and use. We project that the Defense Logistics Agency Aviation did not pursue and obtain appropriate restitution from contractors that supplied defective parts for 269 stock numbers and did not recover at least \$12.3 million in restitution. In addition, defective parts were left unaccounted for in the DoD supply system, which negatively impacts warfighter readiness and safety. This is the second in a series of audits. We conducted this audit in accordance with generally accepted government auditing standards.

We considered management comments on a draft of this report when preparing the final report. Comments from the Director, Defense Logistics Agency Logistics Operations, responding for the Director, Defense Logistics Agency, addressed all specifics of the recommendations and conformed to the requirements of DoD Instruction 7650.03; therefore, we do not require additional comments.

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9077 (DSN 664-9077).

*Jacqueline L. Wiccarver*  
Jacqueline L. Wiccarver  
Acting Deputy Inspector General  
for Auditing



# Contents

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## Introduction

Objective	1
Background	1
Review of Internal Controls	3

## Finding. Defense Logistics Agency Aviation Did Not Obtain Appropriate Restitution From Contractors That Supplied Defective Parts

Process to Pursue and Obtain Contractor Restitution Was Ineffective	5
Coordination With Acquisition Personnel to Pursue Restitution Was Inconsistent	6
Identification of Defective Parts Could Be Better	8
Process to Return Defective Parts to Contractors for Replacement Was Not Effective	11
Return of Defective Parts Were Not Tracked	14
Unclaimed Restitution Wasted Funds, and Defective Parts Jeopardized Safety	15
Conclusion	16
Recommendations, Management Comments, and Our Response	17

## Appendixes

Appendix A. Scope and Methodology	19
Use of Computer-Processed Data	20
Use of Technical Assistance	20
Prior Coverage	21
Appendix B. Statistical Sampling Methodology and Analysis	22

## Management Comments

Defense Logistics Agency Comments	24
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## Acronyms and Abbreviations

# Introduction

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## Objective

We determined whether Defense Logistics Agency (DLA) personnel were obtaining appropriate restitution<sup>1</sup> (reimbursement) from contractors that provided defective spare parts. We focused primarily on defective spare parts that DoD customers identified on product quality deficiency reports (PQDRs) submitted to the DLA Aviation supply chain.

This is the second in a series of audits on DLA PQDR processing. The first audit focused on whether DLA Aviation personnel adequately processed PQDRs and identified the root cause of deficiencies in spare-part quality. The next audit in the series will focus on PQDR processing at the DLA Land and Maritime supply chain. See Appendix A for our scope and methodology, use of computer-processed data, and related prior audit coverage.

## Background

### *Defense Logistics Agency*

DLA, headquartered at Fort Belvoir, Virginia, provides the Army, Marine Corps, Navy, Air Force, and combined allied forces with a full spectrum of logistics, acquisition, and technical services. DLA also provides more than 85 percent of the military's spare parts.

DLA Aviation, headquartered in Richmond, Virginia, is the U.S. military's integrated materiel manager for more than 1.1 million repair parts and operating supply items in support of all fixed- and rotor-wing aircraft, including:

- spare parts for engines on fighters, bombers, transports and helicopters;
- airframe and landing gear parts;
- flight safety equipment; and
- propeller systems.

DLA Aviation purchases spare parts from contractors, stores the parts in DLA distribution depots, and sells and issues parts to DoD customers. In addition to DLA Aviation, DLA has several other supply chains that process PQDRs.

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<sup>1</sup> For this report the term restitution is used as the value of parts the PQDR investigation determined to be defective as a result of contractor noncompliance. Restitution can be in the form of replacement parts, refunds, or voluntary consideration in accordance with Defense Federal Acquisition Regulation Supplement Subpart 246.407, "Nonconforming Supplies or Services." For all instances where DLA Aviation pursued restitution for our sample items, the restitution was generally in the form of replacement parts, not refunds or consideration.

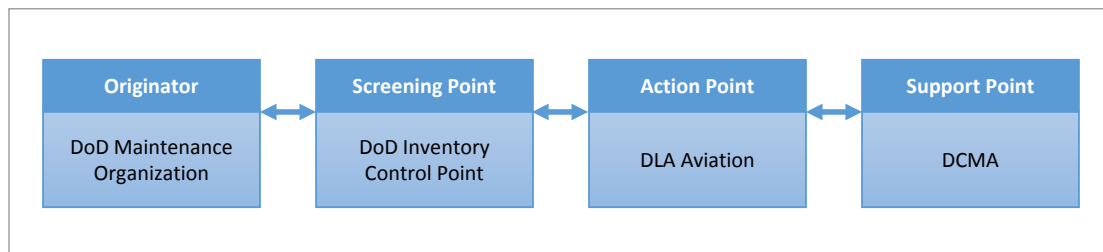
## Product Quality Deficiency Reporting

PQDRs are the primary tool for customer feedback on the quality of spare parts issued through the DoD supply chain. They are submitted when new or newly reworked Government-owned spare parts are determined not to fulfill their expected purpose, operation, or service. DLA Regulation 4155.24<sup>2</sup> implements DoD policy for reporting of product quality deficiency data. In addition, DLA published a PQDR Deskbook<sup>3</sup> that provides details on PQDR processing. DoD organizations use PQDRs to report product defects that result from deficiencies in design, workmanship, specifications, material, or other nonconforming conditions, such as improper packaging. The Regulation establishes a system for feedback on product quality and provides for the initial reporting, cause correction, and status accounting of individual product quality deficiencies. The process primarily focuses on the following roles.

- **Originator**—a user (customer) who discovers the defective part and initiates the PQDR and, in some cases, provides the deficient part (an exhibit) for Government or contractor testing.
- **Screening Point**—a designated activity identified within each DoD organization that reviews the PQDR for validity, accuracy, and completeness of required information and identifies and transmits the PQDR to the proper action point within or outside the DoD organization.
- **Action Point**—leads and manages the PQDR investigation. For DLA-managed items, this responsibility is assigned to a DLA quality assurance specialist.
- **Support Point**—assists the action point in the investigation upon request. This is generally the Defense Contract Management Agency (DCMA).

Figure 1 identifies the DoD organizations that fulfilled the roles above for the PQDRs reviewed during this audit.

*Figure 1. Organizations Involved in Processing DLA Aviation PQDRs*



Source: DoD Inspector General (DoD IG)

<sup>2</sup> DLA Regulation 4155.24, "Product Quality Deficiency Report Program," July 20, 1993.

<sup>3</sup> DLA Deskbook Appendix B35, "Quality Notifications, Product Quality Deficiency Reports (PQDR)," December 12, 2014.



DoD organizations document PQDR processing, tracking, and resolution in the U.S. Navy-hosted Product Data Reporting and Evaluation Program (PDREP) information system. PDREP interfaces with other DoD systems during the PQDR reporting process. Specifically, DLA personnel process PQDRs in the DLA Enterprise Business System. The DLA Enterprise Business System also interfaces with the DLA Distribution Standard System, which DLA distribution depots use to manage its spare part inventory at their storage facilities. This interface primarily occurs when DLA Aviation personnel search the DLA distribution depot inventory for deficient spare parts and direct them to return deficient spare parts to the responsible contractor.

### ***DoD Policy to Obtain Contractor Restitution***

DoD acquisition policy<sup>4</sup> states that if nonconforming parts are discovered after acceptance, the defect appears to be the fault of the contractor, any warranty has expired, and there are no other contractual remedies, the contracting officer:

- shall notify the contractor in writing of the nonconforming parts;
- shall request that the contractor repair or replace the parts; and
- may accept consideration (payment) if offered.

## **Review of Internal Controls**

DoD Instruction 5010.40<sup>5</sup> requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls. We identified an internal control weakness where DLA Aviation personnel did not pursue and obtain appropriate restitution from contractors that provided defective parts. We will provide a copy of the report to the senior DLA official responsible for internal controls.

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<sup>4</sup> Defense Federal Acquisition Regulation Supplement Subpart 246.407, "Nonconforming Supplies or Services," October 1, 2010.

<sup>5</sup> DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013.

## Finding

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### **Defense Logistics Agency Aviation Did Not Obtain Appropriate Restitution From Contractors That Supplied Defective Parts**

DLA Aviation did not pursue and obtain appropriate restitution from contractors that supplied defective parts. Specifically, we project that DLA Aviation did not obtain appropriate restitution for 269<sup>6</sup> national stock numbers<sup>7</sup> for which contractors provided defective parts. This occurred because DLA Aviation logistics operations personnel did not:

- coordinate with acquisition personnel to pursue restitution from responsible contractors;
- adequately search DoD's inventory to identify and remove defective parts; and
- return defective parts to the responsible contractors for replacement.

In addition, DLA Aviation acquisition personnel did not track the status of parts returned to the responsible contractors for replacement.

As a result, we project that DLA Aviation has not recovered at least \$12.3 million<sup>8</sup> in restitution. In addition, the shortcomings in DLA Aviation personnel's execution of the actions required to pursue and obtain restitution left defective parts unaccounted for in the DoD supply system, negatively impacting warfighter readiness and safety.

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<sup>6</sup> See Appendix B for details.

<sup>7</sup> A 13-digit stock number used to identify inventory items in the DoD supply system.

<sup>8</sup> The \$12.3 million represents the projected value of the defective parts that were not replaced or refunded and does not include any additional amounts associated with consideration or voluntary refunds (See Appendix B for details on the statistical projections).

## Process to Pursue and Obtain Contractor Restitution Was Ineffective

DLA Aviation did not pursue and obtain appropriate restitution from contractors that supplied defective parts. To pursue and obtain appropriate contractor restitution, the DLA Aviation logistics operations and acquisition personnel<sup>9</sup> need to complete the following four steps either independently or with assistance from other designated personnel (DCMA) as specified by DLA Regulation 4155.24 and the DLA PQDR Deskbook.

1. Contact the responsible contractor, request restitution, and determine the type of restitution.
2. Search existing stock on hand at DLA distribution depots for additional defective spare parts provided by the responsible contractor and notify DoD customers who purchased the defective parts and have them search their on-hand inventory.<sup>10</sup>
3. Take action to ensure all defective spare parts identified on PQDRs and through additional searches are removed from the DoD supply system and are either disposed of or shipped to the responsible contractor for inspection and repair or replacement.
4. Track<sup>11</sup> and maintain oversight of defective spare parts shipped to the responsible contractor and ensure that the responsible contractor provided appropriate restitution.

In most cases, a failure to successfully complete any one of the steps above will prevent or limit DLA's ability to pursue and obtain appropriate restitution for the defective parts. DLA quality assurance specialists wrote a closing report for each PQDR investigation to explain and document the cause of the deficiency, whether contractor or Government action caused the deficiency, the actions taken to correct the deficiency, and the disposition of the defective product.

We reviewed a stratified sample of 65 stock numbers for which the investigation identified that contractor noncompliance caused defective parts<sup>12</sup> and which had associated PQDRs closed during our review period. We evaluated how DLA Aviation personnel completed the above steps and whether they obtained appropriate restitution from contractors that provided defective parts.

<sup>9</sup> These roles include quality assurance specialists, resolution specialists, and contract administrators.

<sup>10</sup> DLA refers to their search of DLA distribution depot inventory as "stock screening" and the search of DoD's inventory and notification of customers as "alert notification."

<sup>11</sup> DLA Aviation personnel use tracking orders to track the return of defective parts to contractors within its supply chain.

<sup>12</sup> See Appendix B for details.

As a result, we identified that DLA Aviation’s limited execution of these steps hindered its ability to pursue and obtain appropriate restitution and left defective parts unaccounted for in the DoD supply system. Table 1 lists the shortcomings we identified and the number of times they occurred for our 65-sampled stock numbers.

Table 1. Breakout of 65-Sampled Stock Numbers by Restitution Step Failure

Restitution Step Failures	Number of Occurrences*
Coordinate with acquisition personnel and pursue restitution	18
Identify and remove defective parts from DoD inventory	44
Return defective parts to responsible contractor	22
Track defective parts returned to responsible contractor	16

\* The sum of the occurrences is more than 65 because DLA Aviation personnel did not perform one or more steps for some of the 65 stock numbers.

### Coordination With Acquisition Personnel to Pursue Restitution Was Inconsistent

DLA Aviation quality assurance specialists did not always coordinate with acquisition personnel to contact responsible contractors and pursue restitution for defective spare parts. This occurred for 18 of the 65 stock numbers we reviewed.

DLA Regulation 4155.24 requires DLA quality assurance specialists to take the following actions when the PQDR investigation determines that a contractor is responsible for providing defective parts.

- If the item was inspected at the shipping source, request the quality assurance element at the Contract Administration Office<sup>13</sup> investigate the deficiency in conjunction with the contractor and provide a corrective action response.
- If the item was not inspected at the shipping source, request the contracting office responsible for the contract to have the contractor investigate the deficiency and provide a corrective action response.

The Regulation also requires DLA personnel to pursue cost-free repair, replacement, or reimbursement for the defective materiel. However, DLA Aviation did not have the oversight and controls needed to make sure that its personnel consistently completed the required actions. For 18 of the 65 stock numbers that we reviewed, we determined DLA Aviation quality assurance personnel did not coordinate with acquisition personnel to contact responsible contractors as part of the PQDR investigations.

<sup>13</sup> DLA Aviation personnel stated this would generally be DCMA because a source inspection would have generally been performed by DCMA at the contractor’s facility prior to shipment.

For example, we reviewed a PQDR investigation for three defective power cable assemblies that DLA sold for \$4,090 each. An Air Force customer identified them as having an unauthorized splice that could cause a short circuit and potentially damage equipment or result in loss of life. Figure 2 shows one of the defective power cable assemblies.



Figure 2. Defective Power Cable Assembly  
Source: PDREP

The investigation by the DLA Aviation quality assurance specialist determined that the contractor caused the defect by not manufacturing the power cable assemblies in accordance with the applicable Air Force drawing. However, the PQDR did not identify any attempt to pursue and obtain restitution and recommended that the customer dispose of the power cable assemblies to remove them from the supply system. In addition, DLA identified 13 additional defective power cable assemblies delivered on the same contract and marked them for destruction. Overall, DLA Aviation did not pursue restitution for 16 defective power cable assemblies, valued at \$65,440,<sup>14</sup> and the PQDR closing report did not explain why the DLA quality assurance specialist did not take action to seek recoupment.

Overall,  
DLA Aviation  
did not pursue  
restitution for  
16 defective power  
cable assemblies,  
valued  
at \$65,440...

We asked DLA Aviation personnel if they were aware of any documentation or guidance that outlined the process and their various roles and responsibilities. DLA Aviation personnel stated that they were not aware of any information or guidance. Without adequate coordination, DLA Aviation personnel missed opportunities to pursue and obtain appropriate restitution for defective spare parts.

DLA should establish controls and oversight to make sure DLA Aviation quality assurance personnel coordinate with acquisition personnel to pursue restitution from contractors that provide defective parts in accordance with DLA Regulation 4155.24 and Defense Federal Acquisition Supplement 246.407.

<sup>14</sup> All dollar value totals throughout the report are rounded to the nearest dollar.

## Identification of Defective Parts Could Be Better

DLA Aviation quality assurance specialists did not adequately search DoD inventory to identify and remove defective spare parts. This occurred for 44 of the 65 stock numbers we reviewed. We found that DLA quality assurance specialists usually performed searches of DLA's distribution depot inventory for defective parts but rarely notified DoD customers to request they search their inventory for the defective parts they purchased.

...DLA quality assurance specialists usually performed searches of DLA's distribution depot inventory for defective parts but rarely notified DoD customers to request they search their inventory for the defective parts...

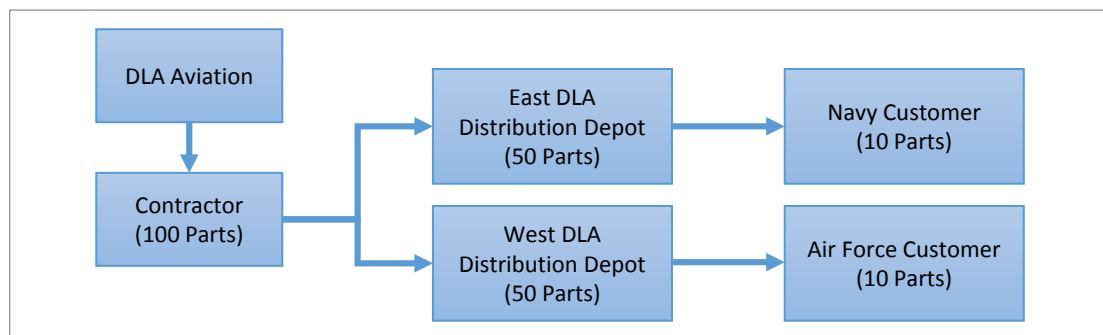
DLA policy<sup>15</sup> requires DLA Aviation quality assurance specialists to take action during a PQDR investigation to identify and remove defective stock from the DoD supply system. Specifically,

- determine if additional defective parts exist beyond those reported on PQDRs;
- search the inventory stored at DLA distribution depots for defective spare parts; and
- search DoD's inventory and notify DoD customers who purchased the parts and have them search their inventory for additional defective parts.

### ***Process to Identify and Remove Defective Parts From the Supply System***

We created an example in Figure 3 to illustrate DLA's process to identify and remove defective parts from the supply system. In the flowchart, DLA awarded a contract to a contractor for 100 parts. The contractor shipped 50 parts to each of DLA's east and west distribution depots. A Navy customer ordered 10 parts that were shipped from the east distribution depot, and an Air Force customer ordered 10 parts that were shipped from the west distribution depot.

*Figure 3. Example of DLA Contract for 100 Parts and Associated Shipments*



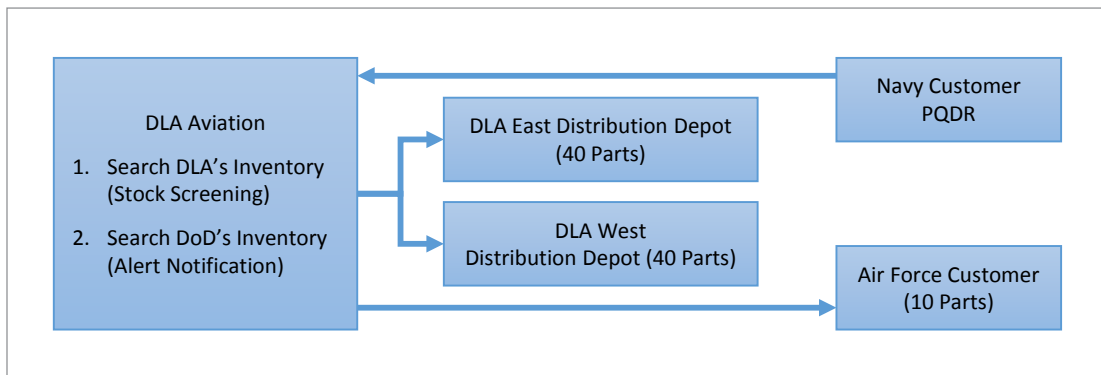
Source: DoD IG

<sup>15</sup> DLA Regulation 4155.24 and the DLA PQDR Deskbook.



The Navy customer then submits a PQDR to notify DLA that the 10 parts it ordered were defective. The PQDR investigation determines that the contractor incorrectly manufactured all 100 parts and the contractor agreed to replace them if returned. To properly account for all 100 defective parts in accordance with DLA policy, the DLA quality assurance specialist should initially determine that the PQDR only identified 10 of the 100 defective parts, leaving 90 defective parts unaccounted for in the DoD supply system. As illustrated in Figure 4, the DLA quality assurance specialist should then search DLA and DoD inventories to account for the remaining 90 defective parts.

*Figure 4. Example of Searching DLA's and DoD's Inventory for 90 Defective Parts*



Source: DoD IG

However, we determined that DLA Aviation lacked oversight and controls to make sure that its quality assurance personnel consistently completed the required actions. Specifically, DLA Aviation quality supervisory personnel did not provide adequate oversight to ensure that quality assurance specialists accounted for all defective parts by thoroughly searching DoD's inventory. Defective parts left unaccounted for in DoD's inventory can impact warfighter readiness and safety and also limit DLA's ability to obtain appropriate restitution.

For example, we reviewed multiple related PQDRs that a Marine Corps logistics organization submitted for 43 defective wiring harnesses that DLA sold for \$657 each. The PQDRs all cited the same contract as the source of the defective parts, and DLA Aviation purchased a total of 390 wiring harnesses on the contract. As illustrated in Figure 5, a correctly manufactured wiring harness is shown on the left and does not have a shell on the bottom half covering the wires. A defective wiring harness is shown on the right that incorrectly has a shell on the bottom of the wiring harness covering the wires.



The PQDR investigation concluded that the contractor had incorrectly manufactured the wiring harnesses and did not use the proper connectors. The contractor agreed to repair or replace all discrepant wiring harnesses if they were returned. However, DLA Aviation quality assurance did not properly search DoD's inventory and make sure that all the defective wiring harnesses were returned to the contractor. Specifically, the DLA quality assurance specialist directed the Marine Corps logistics organization to ship the 43 defective wiring harnesses back to the contractor for repair or replacement. The DLA Aviation quality assurance specialist also searched the DLA distribution depots and identified 144 additional wiring harnesses and directed those be shipped back to the contractor, as well. However, DLA Aviation quality assurance did not notify DLA Aviation's other customers to request they search their inventory for the 203<sup>16</sup> unaccounted-for cable assemblies. Consequently, the 203 defective wiring harnesses remained in DoD's inventory potentially creating a safety risk to the warfighter. In addition, DLA Aviation did not follow DoD policy on nonconforming parts, and they did not correct the potential defects including receiving restitution for the 203 defective parts, valued at \$133,371.<sup>17</sup>

DLA should establish controls and oversight to make sure DLA Aviation quality assurance personnel adequately search DoD's inventory to identify and remove defective parts.

<sup>16</sup> This amount represents 390 minus the 43 identified by the Marine Corps logistics organizations that submitted the PQDRs less the 144 identified and removed from the DLA distribution depots.

<sup>17</sup> The \$133,371 value represents the 203 parts multiplied by the \$657 value for each part.

## Process to Return Defective Parts to Contractors for Replacement Was Not Effective

DLA Aviation logistics operations personnel did not make sure that defective parts were returned to responsible contractors to receive restitution. This occurred for 22 of the 65 stock numbers we reviewed. As part of the PQDR investigation, DLA Regulation 4155.24 requires DLA quality assurance specialists to coordinate with the responsible contractor on the most appropriate means of restitution. In some cases the contractor requests that the defective parts be shipped to their facility so they can replace them. In other cases the contractor agrees to replace the parts without requiring the defective parts be returned to them.

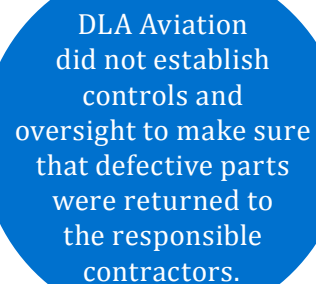
For the defective parts identified on PQDRs, DLA logistics operations personnel must provide the customer that initiated the PQDR with instructions on what to do with the defective parts in the investigation closing letter. Customers who received the defective parts are typically instructed to:

- dispose of the parts and remove them from the DoD supply system;
- ship the parts directly to the responsible contractor; or
- ship the parts to a specific DLA distribution depot where they will be consolidated with other defective parts, if applicable, and shipped to the responsible contractor.

The DLA PQDR Deskbook states that for the defective parts identified when DLA Aviation searches the DLA distribution depot inventory, DLA logistics operations personnel must provide the distribution depot instructions to:

- dispose of the parts and remove them from the DoD supply system; or
- code the parts to reflect a litigation status<sup>18</sup> and hold pending litigation or negotiation with the contractor.

DLA Aviation did not establish controls and oversight to make sure that defective parts were returned to the responsible contractors. DLA Aviation logistics operations personnel did not always provide disposition instructions to DoD customers or DLA distribution depots holding defective parts. In addition, DLA Aviation personnel did not follow up to ensure that personnel properly executed their disposition instructions.



DLA Aviation did not establish controls and oversight to make sure that defective parts were returned to the responsible contractors.

<sup>18</sup> This legal action to resolve a dispute is initiated by assigning a supply condition code of "L" to indicate a litigation status.

For example, we reviewed a PQDR investigation for three defective co-pilot control wheels for the C-5 aircraft that DLA sold for \$35,909 each. The PQDR cited a contract in which DLA Aviation purchased a total of 30 control wheels to be delivered in 2013. The customer who initiated the PQDR sent the three defective parts back to the contractor, which were examined jointly by DCMA and the contractor.

Figure 6 shows a control wheel with the correct cut-out on the left. The defective control wheel pictured on the right contains an incorrect cut-out.



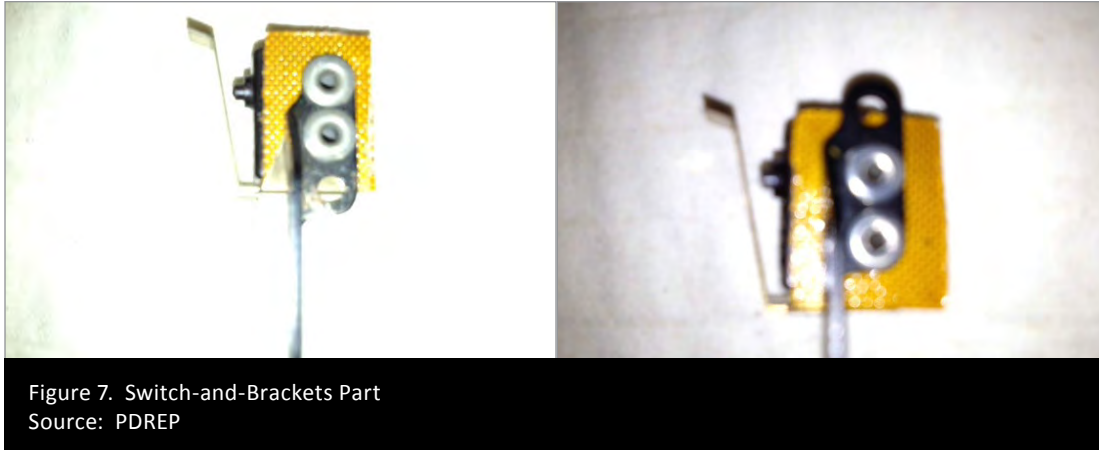
The PQDR investigation determined that all 30 parts provided on the contract were defective. The contractor incorrectly machined the control wheel's recess area, which prevented the control wheels from being installed properly. In addition, the electrical bundle was assembled backwards on one of the three control wheels examined (See Figure 6, picture on left). The contractor replaced the 3 parts from the PQDR and agreed to replace the remaining 27 parts upon their receipt.

DLA Aviation searched the DLA distribution depot inventory in March 2014 and identified that 23 of the remaining defective control wheels, valued at \$825,907, were being stored at the DLA distribution depot in Warner Robins, Georgia. DLA Aviation instructed the DLA distribution depot to ship the parts back to the contractor. DLA Aviation officials did not respond to our inquiries about the 23 control wheels and DLA transaction data showed that the defective control wheels were never shipped from the DLA distribution depot in Warner Robins.

In summary, DLA Aviation could not produce any evidence that it received restitution for 23 defective parts, valued at \$825,907. In addition, DLA Aviation did not notify the other customers who purchased the remaining four defective control wheels, valued at \$143,636, and did not request they search their inventory for the unaccounted parts. Consequently, the defective control wheels remained in the DoD supply system.

DLA Aviation could not produce any evidence that it received restitution for 23 defective parts, valued at \$825,907.

In another example, we reviewed two PQDR investigations for seven defective switch and brackets that DLA sold for \$400 each. DLA Aviation purchased 106 switch and brackets from the contractor. Figure 7 below shows a correctly manufactured switch and bracket on the left and a defective switch on the right.



The contractor riveted the switch to the bracket in the wrong location, which prevented the customer from installing the part correctly. The PQDR investigation closing report stated that the contractor acknowledged providing defective parts and agreed to replace the parts at no cost to the Government by January 2014.

During the PQDR investigation, DLA Aviation searched the inventory at the DLA distribution depots in October 2012 and identified 82 additional defective switch and brackets, valued at \$32,800, from the same contractor. System documentation associated with DLA Aviation's search indicated that the DLA distribution depot storing the parts was awaiting disposition instructions on what to do with them. However, 2 years later when we asked about their status, DLA Aviation officials could not explain why the 82 defective switch and brackets were still waiting disposition instructions at the depot. This delayed and potentially prevented DoD from pursuing and obtaining restitution for 82 defective parts, valued at \$32,800. In addition, DLA Aviation did not notify the other customers of the remaining 17 defective switch and brackets, valued at \$6,800, and did not request that they search their inventory for the unaccounted parts. Consequently, the defective switch and brackets remained in the DoD supply system.

DLA Aviation officials could not explain why the 82 defective switch and brackets were still waiting disposition instructions at the depot.

DLA should establish controls and oversight to make sure DLA Aviation logistics operations personnel return defective parts to responsible contractors for replacement.

## Return of Defective Parts Were Not Tracked

DLA Aviation acquisition personnel did not properly track defective parts returned to contractors to ensure that appropriate restitution was received in the form of replacement parts. This occurred for 16 of the 65 stock numbers we reviewed. Although DLA Aviation returned the defective parts for the 16 stock numbers, the contractors:

- did not provide any replacement parts for 14 stock-numbered items, and
- replaced only a portion of the parts returned to them for 2 stock-numbered items.

DLA Aviation lacked controls and oversight needed to allow them to adequately track parts returned to contractors for replacement. Specifically, DLA Aviation had a process in which acquisition personnel were required to establish tracking orders to create system records<sup>19</sup> for parts returned to contractors for replacement. However, those tracking orders could not be easily linked to an official contract line-item number, and nobody monitored them to ensure that contractors provided adequate restitution in the form of replacement parts. In addition, there was no assurance that the tracking orders were created. Without these tracking orders, DLA Aviation lacked oversight over parts returned to contractors and did not have assurance that restitution was received in the form of replacement parts.

For example, we reviewed a PQDR investigation for 17 defective transducer probes for the F-5 aircraft that DLA sold for \$5,515 each. The PQDR investigation determined that the contractor was responsible for 200 defective parts, because it did not sufficiently package the material to protect it from storage and handling damage and instructed the customer to return the parts to a DLA distribution depot. As part of the investigation, DLA Aviation searched the inventory at the DLA distribution depots and identified an additional 183 defective parts, which it shipped to the contractor in June 2014. DLA also shipped another 17 probes to the contractor in September and October 2014. DLA Aviation officials did not respond to our inquiries about the outstanding 200 transducer probes, valued at \$303,000, and DLA transaction data did not show that any replacement parts were received.

In another example, we reviewed a PQDR investigation for 13 defective water tanks used on the B-1B and B-2A aircraft that DLA sold for \$5,927 each. The PQDR investigation determined that the contractor was responsible for the defect and overlooked one of the fittings. DLA Aviation authorized the customers to be reimbursed for the defective water tanks and instructed them to return the tanks to the responsible contractor for replacement. During the investigation, DLA

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<sup>19</sup> These records identified that parts were shipped to the contractor's facility and that replacement parts were expected at a future date.



Aviation searched the inventory at the DLA distribution depots and identified an additional 13 defective water tanks and shipped these parts to the contractor in April and May 2014. When we inquired about the water tanks, DLA Aviation officials were unaware of their status. DLA transaction data did not show that any replacement parts were received for the 26 water tanks, valued at \$154,102.

DLA transaction data did not show that any replacement parts were received for the 26 water tanks, valued at \$154,102.

DLA should require DLA Aviation to establish controls and oversight to track the status of defective parts shipped back to contractors and ensure that appropriate restitution is provided in the form of replacement parts.

## Unclaimed Restitution Wasted Funds, and Defective Parts Jeopardized Safety

### *Missed Opportunities To Obtain Restitution*

When DLA Aviation determined that contractors provided defective parts, it did not take the necessary actions to make sure DoD received appropriate restitution. By not completing the necessary actions, DLA Aviation missed opportunities to hold poor-performing contractors accountable and for DoD to receive the appropriate restitution. We project that DLA Aviation did not pursue and obtain appropriate restitution for 269 stock numbers<sup>20</sup> and did not recoup at least \$12.3 million in restitution.

### *Defective Parts Negatively Impact Warfighter Readiness and Safety*

DLA Aviation did not adequately search DoD's inventory, which allowed defective spare parts to be unaccounted for in the DoD supply system. These defective parts negatively impact warfighter readiness and safety. Specifically, many of the PQDRs for the stock numbers we reviewed cited readiness and safety concerns.

For the defective co-pilot control wheels discussed earlier in this report, the Air Force organization that initiated the PQDR stated on the PQDR that the improperly manufactured parts prevented the control wheel hub assembly from being installed properly. The complaint further stated that continuously changing the component had consumed numerous valuable hours and energy that caused a work stoppage with completing the required maintenance task. In this case,

<sup>20</sup> The amount for which DLA Aviation closed out a PQDR investigation from January 2014 through June 2014, and the investigation results indicated that a contractor was responsible for providing defective parts.

DLA Aviation did not search DoD's inventory for four defective control wheel hub assemblies that were unaccounted for from the contract. As a result, DLA Aviation allowed them to remain in the DoD supply system, which may require additional maintenance and delays in the return of the aircraft to mission ready condition.

In another example, we reviewed a PQDR investigation for tie-down straps that DLA sold for \$1 per hundred straps. Despite the low cost, these items were

An Air Force customer identified deficient tie-down straps on a PQDR and stated that the ties broke and did not hold the oxygen hose to the oxygen mask, causing loss of oxygen to aircrew members during flight.

considered critical application items and were used to attach oxygen hoses to pilot's helmets. An Air Force customer identified deficient tie-down straps on a PQDR and stated that the ties broke and did not hold the oxygen hose to the oxygen mask, causing loss of oxygen to aircrew members during flight.

The PQDR investigation determined that the defect was a result of contractor noncompliance, and the contractor delivered 52,314 tie-down straps on the associated contract. DLA Aviation quality assurance reviewed multiple PQDRs,

searched the DLA distribution depots, and located only 16,701 defective tie-down straps. Although 35,613 of the remaining tie-down straps purchased off the contract were unaccounted for, the DLA Aviation quality assurance specialist did not alert other customers who purchased the defective tie-down straps and did not request they search DoD's inventory. The defective tie-down straps jeopardized the safety of the warfighter.

DLA should require DLA Aviation to review all stock numbers with associated PQDRs closed between January 2014 and November 2015 where their investigation concluded that the contractor provided defective parts.

## Conclusion

DLA Aviation missed opportunities to pursue and obtain restitution from contractors that provided defective parts. In addition, DLA Aviation allowed for defective parts to remain in the DoD supply system. We identified several deficiencies in DLA Aviation's processes for obtaining restitution from contractors that provide defective spare parts. However, if DLA Aviation addresses our findings, it can improve its ability to recover funds and also increase warfighter readiness and safety.

Our projections show that DLA Aviation did not pursue and obtain appropriate restitution from contractors that supplied defective parts for 269 stock numbers and did not recover at least \$12.3 million in restitution. Therefore, DLA Aviation

should review all stock numbers with associated PQDRs, closed since January 2014, in which their investigation concluded that the contractor provided defective parts. DLA Aviation should focus on high-value items, as well as the mission critical items, and ensure that prompt action is taken to pursue and obtain appropriate restitution and to remove all defective parts from the DoD supply system.

## Recommendations, Management Comments, and Our Response

### ***Recommendation 1***

**We recommend that the Director, Defense Logistics Agency, develop a plan of action with milestones to improve the agency's process to identify defective spare parts and for requesting repair and replacement of the defective parts and accepting consideration. The plan should address the problems that this report identified and establish controls and oversight to ensure Defense Logistics Agency Aviation logistics operations and acquisition personnel:**

- a. Coordinate to pursue restitution from contractors that provide defective parts.**
- b. Adequately search DoD's inventory to identify and remove defective parts.**
- c. Return defective parts to responsible contractors for replacement.**
- d. Track the status of defective parts shipped back to contractors and ensure that appropriate restitution is provided in the form of replacement parts.**

### ***Defense Logistics Agency Comments***

The Director, DLA Logistics Operations, responding for the Director, DLA, agreed, stating that DLA will develop a comprehensive plan to ensure that all parties involved in restitution are aware of their responsibilities and the actions that they are expected to take; that inventory is adequately searched to identify and remove defective parts that were supplied by the DLA; and, when appropriate, that defective parts are returned to contractors for repair and replacement, including a plan to track the status of defective parts shipped back to contractors with appropriate restitution provided. Estimated completion date is March 2016.

### ***Our Response***

Comments from the Director addressed all specifics of the recommendations, and no further comments are required.

## ***Recommendation 2***

**We recommend that the Director, Defense Logistics Agency, require the Defense Logistics Agency Aviation to review all stock numbers with associated product quality deficiency reports closed between January 2014 and November 2015 where its investigation concluded that the contractor provided defective parts. The review should focus on high-value items as well as mission critical items and ensure that prompt action is taken to pursue appropriate restitution, and remove all defective parts from the DoD supply system.**

### ***Defense Logistics Agency Comments***

The Director, DLA Logistics Operations, responding for the Director, DLA, agreed, stating that he will require DLA Aviation to develop a plan to review all stock numbers with associated PQDRs closed from January 2014 through November 2015 where the investigation indicated that the PQDR was valid and that the deficiency was due to a contractor noncompliance. The plan will also address how DLA Aviation will take steps to identify high-value, critical safety items and take prompt action to pursue appropriate restitution and take steps to ensure that related defective parts are removed from the DoD supply system once the population is identified. The plan will include a timeline for completion. Estimated completion date for developing the plan is March 2016.

### ***Our Response***

Comments from the Director addressed all specifics of the recommendations, and no further comments are required.

## Appendix A

### Scope and Methodology

We conducted this performance audit from December 2014 through December 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We reviewed:

- Defense Federal Acquisition Regulation Supplement, Subpart 246.407, “Nonconforming supplies or services,” October 2010.
- DLA Regulation 4155.24 / Army Regulation 702-7 / Secretary of the Navy Instruction 4855.5A / Air Force Regulation 74-6, “Product Quality Deficiency Report Program,” July 20, 1993.
- DLA Deskbook Appendix B35, “Quality Notifications, Product Quality Deficiency Reports (PQDR),” December 12, 2014.

We contacted personnel from:

- DLA Headquarters, Fort Belvoir, Virginia;
- DLA Aviation, Richmond, Virginia; and
- DLA Land and Maritime, Columbus, Ohio.

We obtained a population of 860 stock numbers with 1,299 associated PQDRs which were closed from January 1, 2014, through June 30, 2014, for which DLA Aviation functioned as the action point. We reviewed deficiency cause codes<sup>21</sup> with other deficiency indicators, and concluded that for 312 stock numbers, the 522 associated PQDRs indicated a likelihood that the contractor was at fault for the deficiency. We coordinated with the DoD OIG Quantitative Methods Division and selected a stratified sample of 65 of the 312 stock numbers for review. The 65 stock numbers had at least 113 PQDRs because originators sometimes submitted multiple PQDRs for the same deficiency, and DLA generally combined investigations. In some cases, we also looked at other PQDRs if they were associated with the same stock number and contract.

<sup>21</sup> A one-digit code that the DLA quality assurance specialist uses to identify the cause of the defective parts (contractor non-compliance, Government technical data package/design error, etc.).

We reviewed each of the 65 stock numbers and associated PQDRs to determine whether DLA Aviation personnel's pursuit of contractor restitution was adequate. We interviewed DLA Aviation quality assurance personnel, resolution specialists, contracting personnel, and other personnel. Specifically, we reviewed associated evidence to determine if DLA Aviation personnel took reasonable action to:

- convince the contractor to agree to provide restitution for the defective parts;
- search DoD's inventory for related defective parts;
- return defective parts to the contractor (if applicable); and
- track parts returned to the contractor to ensure appropriate restitution was obtained.

## Use of Computer-Processed Data

We used computer-processed data from the U.S. Navy-hosted PDREP, the DLA Enterprise Business System, and the DLA Distribution Standard System.

The information we obtained from PDREP was in the form of stock numbers with associated PQDRs closed from January 2014 through June 2014. We focused on PQDRs where DLA Aviation was the action point for the investigation. To test the reliability of the PDREP data, we reviewed PQDRs investigation results and coding to determine if a contractor was responsible for defective parts. We interviewed DLA Aviation quality assurance specialists and other responsible DLA Aviation personnel where necessary and reviewed additional support in the DLA Enterprise Business System and Distribution Standard System that supported the PQDR investigation results.

The information we obtained from the DLA Enterprise Business System was in the form of PQDR investigation coding entered by DLA Aviation quality assurance personnel. To test the reliability of the data, we interviewed DLA Aviation quality assurance personnel who performed investigations and coded PQDRs. We also compared the coding for sampled PQDRs in the DLA Enterprise Business System to the coding in PDREP. We determined that the computer-processed data were sufficiently reliable for our purposes.

## Use of Technical Assistance

The DoD IG Quantitative Methods Division assisted in designing the stratified sample and projecting the results. See Appendix B for detailed information about the work the Quantitative Methods Division performed.



## Prior Coverage

During the last 5 years, the DoD IG issued one report discussing DLA PQDR processing at DLA Aviation. Unrestricted DoD IG reports can be accessed at <http://www.dodig.mil/pubs/index.cfm>.

### ***DoD IG***

Report No. DODIG-2015-140, “Defense Logistics Agency Can Improve Its Product Quality Deficiency Report Processing,” July 1, 2015

# Appendix B

## Statistical Sampling Methodology and Analysis

### Population

We obtained a population of 860 stock numbers with 1,299 associated PQDRs, which were closed from January 1, 2014, through June 31, 2014, where DLA Aviation functioned as the action point. We reviewed deficiency cause codes with other deficiency indicators and concluded that for 312 stock numbers, 522 associated PQDRs had a likelihood that the contractor was at fault for the deficiency.

### Measures and Parameters

For the sampled stock numbers reviewed, we determined whether the contractor was at fault for the deficiency and if less-than-appropriate restitution was obtained. We used a 90-percent confidence interval.

### Sample Plan

The DoD IG Quantitative Methods Division designed a stratified sampling plan for this project. We stratified the population into four groups and selected the following sample shown in Table 2.

Table 2. Stratified Population and Sample

Stratum	Sample	Population
High with support	17	68
High without support	23	95
Medium with support	10	58
Medium without support	15	91
Total	65	312

### ***Statistical Analysis and Interpretation***

Based on the audit results for the 65 stock numbers sampled from the population that we provided to Quantitative Methods Division analysts, the analysts calculated the following statistical projections for the contractor being at fault for the defective parts and less than appropriate restitution obtained as shown in Table 3.

*Table 3. Statistical Projections for 65 Stock Numbers That we Sampled*

Type of Projection	Lower Bound	Point Estimate	Upper Bound
Number of Errors	246	269	292
Dollar Amount	\$12,256,130	\$17,689,653	

Note: Projections are based on a 90-percent confidence level.

We are 90-percent confident that the errors for deficient parts where contractor is at fault and less than appropriate restitution was obtained are between 246 and 292 with a point estimate of 269. We are also 90-percent confident that the dollar amounts in error are at least \$12,256,130 with a point estimate of \$17,689,653.

## Management Comments

### Defense Logistics Agency Comments



DEFENSE LOGISTICS AGENCY  
HEADQUARTERS  
8725 JOHN J. KINGMAN ROAD  
FORT BELVOIR, VIRGINIA 22060-6221

JAN 15 2016

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL  
(ACQUISITION, PARTS, AND INVENTORY)

SUBJECT: Response to DoD IG Report "Defense Logistics Agency Can Improve its Processes to Obtain Restitution From Contractors That Provide Defective Spare Parts" (Project No. D2015-D000AG-0107.000)

Attached is the Defense Logistics Agency's (DLA) response to the subject Draft Report. We appreciate the opportunity to review and comment on the findings and recommendations. Management comments and recommendations are outlined on the attachment.

The point of contact for this audit is [REDACTED]

A handwritten signature in black ink, reading "V. Griffith", is positioned above the printed name and title.

VINCE GRIFFITH  
Rear Admiral, SC, USN  
Director, DLA Logistics Operations

Attachment:  
As stated

## Defense Logistics Agency Comments (cont'd)

**Response to DOD IG Draft Report "Defense Logistics Agency Aviation Can Improve its Processes to Obtain Restitution From Contractors That Provide Defective Spare Parts" (Project No. D2015-D000AG-0107.000)**

As requested, Defense Logistics Agency (DLA) is providing the following response to Recommendations 1.a, 1.b, 1.c, 1.d and Recommendation 2.

**RECOMMENDATION 1.** We recommend the Director, Defense Logistics Agency develop a plan of action with milestones to improve the agency's process to identify defective spare parts and for requesting repair and replacement of the defective parts and accepting consideration. The plan should address the problems that this identified and establish controls and oversight to ensure Defense Logistics Agency Aviation logistics operations and acquisition personnel:

- a. Coordinate to pursue restitution from contractors that provide defective parts.
- b. Adequately search DOD's inventory to identify and remove defective parts.
- c. Return defective parts to responsible contractors for replacement
- d. Track the status of defective parts shipped back to contractors and ensure that appropriate restitution is provided in the form of replacement parts

**Response:** DLA concurs with the recommendation and will develop a comprehensive plan to ensure that all parties involved in restitution are aware of their responsibilities and the actions that they are expected to take; that inventory is adequately searched to identify and remove defective parts that were supplied by the DLA, and when appropriate, that defective parts are returned to contractors for repair or replacement, along with a plan to track the status of defective parts shipped back to contractors and that appropriate restitution is provided. Estimated completion date is March 2016.

**RECOMMENDATION 2.** We recommend that the Director, Defense Logistics Agency require the Defense Logistics Agency Aviation to review all stock numbers with associated product quality deficiency reports closed between January 2014 and November 2015 where its investigation concluded that the contractor provided defective parts. The review should focus on high-value items as well as mission critical items and ensure that prompt action is taken to pursue appropriate restitution, and remove all defective parts from the DoD supply system.

**Response:** The Director, Defense Logistics Agency will require that the Defense Logistics Agency Aviation develop a plan to review all stock numbers with associated product quality deficiency reports closed between January 2014 and November 2015 where the investigation indicated that the PQDR was valid, and that the deficiency was due to a contractor noncompliance. The plan will also address how the Defense Logistics Agency Aviation will take steps to identify high-value, critical safety items and take prompt action to pursue appropriate restitution and take appropriate steps to ensure that related defective parts are removed from the DoD supply systems once the population is identified. The plan is to include a timeline for completion. Estimated completion date for developing the plan is March 2016.

## Acronyms and Abbreviations

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**DCMA** Defense Contract Management Agency

**DLA** Defense Logistics Agency

**DoD IG** Department of Defense Inspector General

**PDREP** Product Data Reporting and Evaluation Program

**PQDR** Product Quality Deficiency Report



# **Whistleblower Protection**

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